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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,625	10/20/2003	Hiroyuki Kawamoto	244149US2	1788

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EXAMINER	
WOLDEMARIAM, AKILILU K	

ART UNIT	PAPER NUMBER
2624	

NOTIFICATION DATE	DELIVERY MODE
01/16/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/687,625	KAWAMOTO ET AL.	
	Examiner	Art Unit	
	AKLILU k. WOLDEMARIAM	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 December 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08/14/2008, 12/07/2007, 02/11/2005, 01/20/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment field on 12/17/2008 has been entered. Claim 1 has been amended. Claims 5-6 have been cancelled. Claims 1-4 and 7 are still pending with claim 1 being an independent.

Response to Arguments

2. Applicant's arguments field on 12/17/2008 have been respectfully considered, however, new limitations added to claim 1 is rejected under new ground of rejection. Therefore, the arguments are moot.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishigaki (U.S. Patent number 7, 009,722 B1) in view of Hiroshi (Japan Publication number 2000-032241) and further in view of Guest et al., "Guest" (U.S. Publication number 2002/0191832A1).

Regarding claim 1, *Nishigaki discloses* an image processing apparatus (see fig.2) comprising:

an image storage unit configured to store a plurality of types of image data one of said plurality of types of image data is binary image data, in a first data format that is

compressed *(see column 2, lines 7-11 and column 3, lines 23-27 and 42-44 and column 4, lines 434-39);*

a data format converter configured to convert the first data format of the image data to a second data format being a general data format which can be read by a general data format converter *(see fig.1 A and B and column 2, lines 24-41)* including general image processing functions *(see paragraph [0023] while the image processing portion 29 carries out the data compression of the image data to transmit, and codes and it functions as DCR (coding decryption) which elongates and decrypts the image data which received, a user performs the compression process etc),* the data format converter including

Nishigaki does not disclose a communicator including a communication interface that transmits configured to transmit the image data of the first data format together with the image data of the second data format as reference image data for the image data of the first data format to an external device.

Hiroshi discloses a communicator including a communication interface that transmits configured to transmit the image data of the first data format together with the image data of the second data format as reference image data for the image data of the first data format to an external device including the general data format converter *(see abstract and paragraph [0016] and [0018]).*

It would have been obvious to someone of the ordinary skill in the art at the time when the invention was made to use Hiroshi's a communicator including a communication interface that transmits configured to transmit the image data of the first

data format together with the image data of the second data format as reference image data for the image data of the first data format to an external device in Nishigaki's an image processing apparatus because it will allow to improve the speed of data processing technique, with scanner equipment and is stored up in large capacity storage, *[Hiroshi's, see paragraph [0003]).*

Nishigaki and Hiroshi do not disclose at least one multinary data resolution converter configured to convert multinary data including more than two bits and to determine a desired resolution range and

to perform resolution conversion on the image data stored in the image storage unit, which is multinary image data, at a conversion rate such that resolution of the image data as a base of conversion and a resolution after the conversion fall into said desired resolution range, and

a binary resolution converter configured to perform resolution conversion on binary image data.

However, Guest discloses at least one multinary data resolution converter configured to convert multinary data including more than two bits and to determine a desired resolution range (*see paragraph [0020] receives image data from a predetermined field, and converts the image data in digital data. In one exemplary embodiment, camera 102 generates a bitmap array of picture elements ('pixels") having a brightness value that ranges from 0 to 255 and pixels dimensions referred to resolution, [0022], [0025], [0026], [0031] and [0055]) and*

to perform resolution conversion on the image data stored in the image storage unit, which is multinary image data, at a conversion rate such that resolution of the image data as a base of conversion and a resolution after the conversion fall into said desired resolution range (*see paragraph [0020] receives image data from a predetermined field, and converts the image data in digital data. In one exemplary embodiment, camera 102 generates a bitmap array of picture elements ('pixels") having a brightness value that ranges from 0 to 255 and pixels dimensions referred to resolution and camera referred to store image, [0020], [0025], [0026], [0031] and [0055])*, and

a binary resolution converter configured to perform resolution conversion on binary image data (*see paragraph [0020] receives image data from a predetermined field, and converts the image data in digital data. In one exemplary embodiment, camera 102 generates a bitmap array of picture elements ('pixels") having a brightness value that ranges from 0 to 255 and bitmap array of picture elements ("pixels") referred to binary image [0022], [0025], [0026], [0031] and [0055]).*

It would have been obvious to ordinary skill in the art at the time when the invention was made to use Guest's at least one multinary data resolution converter configured to convert multinary data including more than two bits and to determine a desired resolution range in the combined method of Nishigaki's and Hiroshi's an image processing apparatus because it will allow to receive the digital image data from camera 102, converts the data into a suitable data format, and stores the data for subsequent use by other component of system, [Guest, paragraph [0022]].

Regarding Claim 2, *Hiroshi discloses* the image processing apparatus *(see item 11, drawing 1)* according to claim 1, wherein the data format converter comprises an expandor configured to expand the image data stored in the image storage unit *(see paragraph [0022] and [0023]);*

a multinary unit configured to convert image data expanded of low bits to multinary image data *(see abstract and paragraph [0011]);* and

a data compressor configured to compress the multinary image data into a multinary general compression format (reference) *(see abstract and paragraph [0011]).*

Regarding Claim 3, *Horishi discloses* the image processing apparatus *(see item 11, drawing 1)* according to claim 1, wherein the data format converter comprises an expandor configured to expand the image data stored in the image storage *unit (see paragraph [0022] and [0023]);*

a binary unit configured to convert the image data expanded, which is monochrome multinary image data, to binary image data *(see paragraph [0022] and [0023]);* and a data compressor configured to compress the binary image data in a binary general compression format *(see abstract and paragraph [0022] and [0023]).*

Regarding Claim 7, *Horishi discloses* the image processing apparatus *(see item 11, drawing 1)* according to claim 1, further comprising an imaging unit configured to form an image on a recording medium based on the image data stored in the image storage unit *(see drawing 1 and paragraph [0011]),* wherein a printing function is combined with the imaging unit to adapt the first data format of the image data stored in

the image storage unit to a data format used in the imaging unit *(see drawing 1, abstract and paragraph [0011], and [0016]).*

5. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishigaki in view of Horishi and in view of Guest as applied to claim 1, above, and further in view of Kato (U.S. Publication number 2001/0012397 A1).

Regarding Claim 4, *Horishi discloses* the image processing apparatus *(see item 11, drawing 1)* according to claim 1, wherein the data format converter (*see abstract and paragraph [0022] and [0023])* comprises.

Horishi does not disclose a color space converter configured to convert a color space of the image data stored in the image storage unit, which is color multinary image data, to a general color space.

Kato discloses a color space converter configured to convert a color space of the image data stored in the image storage unit, which is color multinary image data, to a general color space *(see fig. 18 and abstract and paragraph [0102], [0104] and [0151]).*

It would have been obvious to someone of the ordinary skill in the art at the time when the invention was made to use Kato's a color space converter configured to convert a color space of the image data stored in the image storage unit, which is color multinary image data, to a general color space in the combination method of Nishigaki's, Horishi's and Guest's an image processing apparatus because it will allow to reduce the memory capacity and the transmission data volume, [*Kato, see paragraph [0004]).*

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AKLILU k. WOLDEMARIAM whose telephone number is (571)270-3247. The examiner can normally be reached on Monday-Thursday 6:30 a.m-5:00 p.m EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on 571-272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Samir Ahmed
Examiner
Art Unit 2624

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Examiner, Art Unit 2624
01/12/2009

/Brian Q Le/
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